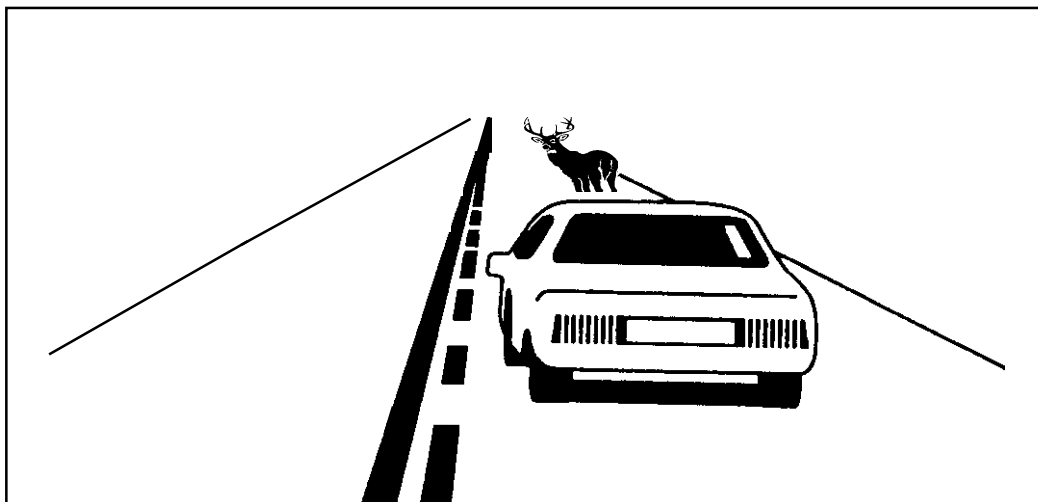


MISSOURI STATE HIGHWAY PATROL



ANALYSIS OF DEER INVOLVEMENT IN MISSOURI TRAFFIC CRASHES 2002

**Prepared By
Public Information and Education Division
and the
Missouri Statistical Analysis Center**

September, 2003

CONTENTS

	Page
INTRODUCTION	1
1. METHODOLOGY	1
2. DISCUSSION OF FINDINGS	2
FARS Data Source	2
STARS Data Source	2
3. FINDINGS	3

TABLES

Page

2002 MISSOURI FATAL TRAFFIC CRASHES

1.	2002 Missouri Fatal Traffic Crashes, Deer Involvement	3
----	---	---

MISSOURI DEER-INVOLVED TRAFFIC CRASHES, 2001

2.	2002 Missouri Traffic Crashes, Deer Strike Involvement	4
3.	2002 Deer Crashes, Area Classification by Crash Severity	5
4.	2002 Deer Crashes, Road Curvature by Crash Severity	5
5.	2002 Deer Crashes, Road Incline by Crash Severity	5
6.	2002 Deer Crashes, Road Conditions by Crash Severity	6
7.	2002 Deer Crashes, Highway Classification by Crash Severity	6
8.	2002 Deer Crashes, Highway Classification by Area Classification and Crash Severity	7
9.	2002 Missouri Deer Crashes, Type of Vehicle Striking Deer by Crash Severity	10
10.	Vehicles Striking Deer in 2002 Missouri Crashes, Driver Involvement by Crash Severity	11
11.	Drivers of Vehicles Striking Deer in 2002 Missouri Crashes, Sex of Driver by Crash Severity	11
12.	Drivers of Vehicles Striking Deer in 2002 Missouri Crashes, Age of Driver by Crash Severity	12
13.	Drivers of Vehicles Striking Deer in 2002 Missouri Crashes, Driver's License State and Type by Crash Severity	13
14.	2002 Deer Strike Crashes, County Quartile Analysis	14
15.	2002 Deer Strike Crashes, City Listing	16

FIGURES

MISSOURI DEER TRAFFIC CRASHES

1.	Missouri Traffic Safety Deer Involvement Problem Analysis Clock, 2002	4
2.	2002 Missouri Deer Crashes, Month of Year	8
3.	2002 Missouri Deer Crashes, Day of Week	8
4.	2002 Missouri Deer Crashes, Hour of Day	9

INTRODUCTION

In recent years, Missouri traffic safety authorities have expressed concern over (1) animal-vehicle crashes involving deer and (2) crashes caused by drivers avoiding deer on roadways. This is one in a series of reports designed to identify the seriousness and characteristics of deer-involved traffic crashes on Missouri's public roadways.

1. METHODOLOGY

To assess the problem of 2002 deer-related traffic crashes in Missouri, two information sources were utilized. In the first instance, data from the National Highway Traffic Safety Administration (NHTSA), Fatality Analysis Reporting System (FARS) were analyzed. In this analysis, fatal crashes were identified where the first harmful event involved a motor vehicle striking a deer. In addition, fatal crashes were identified where drivers made evasive maneuvers to avoid deer and no deer were struck but their evasive maneuvers contributed to the cause of the traffic crash.

The second source of information used in this study was the Missouri Statewide Traffic Accident Records System (STARS). Using STARS data, all 2002 Missouri traffic crashes where a deer was struck as part of the first harmful event were identified and analyzed (not just fatal crashes). However, this information source was limited in that it did not contain data identifying traffic crashes involving a deer avoidance maneuver where the animal was not struck. As a result, analysis could not be conducted on the deer avoidance maneuver problem associated with all Missouri traffic crashes.

2. DISCUSSION OF FINDINGS

The following is a discussion of findings obtained from an analysis of Missouri's 2002 traffic crashes related to deer involvement:

FARS DATA SOURCE

An analysis was conducted of all 2002 Missouri fatal traffic crashes. There were 1,082 such crashes in which 1,208 persons were killed. Three people lost their lives in three fatal crashes involving a vehicle striking a deer and one person died in one crash where deer were avoided.

STARS DATA SOURCE

- In 2002, Missouri had 4,200 traffic crashes where deer-vehicle strikes occurred in the first harmful event. One deer strike occurred every 2.1 hours in the State.
- In 2002, 3 people were killed and 322 injured in these types of crashes. One person was killed or injured every 1.1 days.
- Of all deer strike traffic crashes, 23.6% occurred in an urban area and 76.4% occurred in a rural area of the State. Even though rural areas seem to be overrepresented, the eight highest ranking Missouri counties experiencing this problem are associated with major metropolitan areas. These include: Jackson, St. Louis, Jefferson, Clay, Platte, St. Charles, Boone, and Franklin. Deer strike traffic crashes in these counties account for 33.1% of the total.
- Slightly more than four of five, or 81.4%, of the 2002 deer strike crashes occurred on State-maintained roadways. The greatest proportion occurred on State Numbered Routes (27.7%), followed closely by U.S. Highways (23.6%) and State Lettered Routes (20.4%). An additional 9.7% occurred on Interstates, 8.6% on city streets, and 8.2% on county roads.
- Calculations show slightly less than half, or 47.0%, of the 2002 deer strike crashes occurred from October through December, with the largest proportion in November (24.3%). When discussing this with the Missouri Department of Conservation, they suggested the major cause of increased roadway crossings by deer during this period is mating season. The peak occurs about mid-November. In addition, deer hunting season also may cause an increase in roadway crossings. The slight increase in deer-involved crashes noted in the spring months may be attributed to yearling fawns dispersing from their mothers just prior to the arrival of newborns.
- Friday and Saturday were the most likely weekdays for deer strike crashes to occur. Nearly one in three, or 30.3%, occurred on Friday or Saturday in 2002.
- The majority of deer strike crashes occurred from 5:00 p.m. through 6:59 a.m. This time period accounted for 85.3% of the total.
- Of the drivers striking deer, 60.2% were male and 39.8% were female. The average age of the driver was 38.9 years.
- Of the drivers striking deer, 87.0% had a Missouri driver's license, 12.7% had an out-of-state driver's license, and 0.3% were unlicensed at the time of the crash.

3. FINDINGS

The following is a series of tables and figures which characterize Missouri's 2002 deer strike traffic crash problem.

**2002 MISSOURI FATAL TRAFFIC CRASHES
DEER INVOLVEMENT¹**

TYPE OF CRASH	FATAL CRASHES	%	FATALITIES
DEER-VEHICLE STRIKE	3	0.3	3
AVOIDING DEER	1	0.1	1
NO INVOLVEMENT	1,078	99.6	1,204
STATE TOTAL	1,082	100.0	1,208

TABLE 1

¹Source: National Highway Traffic Safety Administration (NHTSA), Fatality Analysis Reporting System (FARS).

2002 MISSOURI TRAFFIC CRASHES

DEER STRIKE INVOLVEMENT

		PERSONAL INJURY		PROPERTY DAMAGE		TOTAL		%		TOTAL NUMBER ¹		DRIVERS/PASSENGERS OF VEHICLES STRIKING DEER ²	
FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%	%	%	KILLED	INJURED	KILLED	INJURED
DEER INVOLVED	3	0.3	280	0.6	3,917	2.9	4,200	2.3	3	322	3	3	310
OTHER INVOLVEMENT	1,079	99.7	47,693	99.4	132,814	97.1	181,586	97.7	1,205	72,277	-	-	-
TOTAL	1,082	100.0	47,973	100.0	136,731	100.0	185,786	100.0	1,208	72,599	3	3	310

¹This statistic indicates the total number of persons killed and injured in a crash where a deer was struck during the first harmful event in a crash.

²This statistic indicates the number of drivers and passengers of vehicles striking deer during the first harmful event in a crash who were killed and injured.

TABLE 2

MISSOURI TRAFFIC SAFETY DEER INVOLVEMENT
PROBLEM ANALYSIS CLOCK

2002

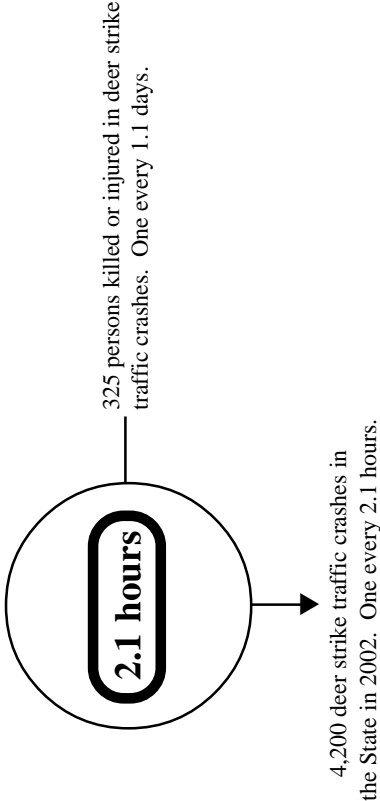


FIGURE 1

2002 DEER CRASHES

AREA CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
URBAN	0	0.0	66	23.6	927	23.7	993	23.6
RURAL	3	100.0	214	76.4	2,990	76.3	3,207	76.4
TOTAL	3	100.0	280	100.0	3,917	100.0	4,200	100.0

TABLE 3

2002 DEER CRASHES

ROAD CURVATURE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
STRAIGHT	2	66.7	243	87.1	2,324	87.4	2,569	87.4
CURVE	1	33.3	36	12.9	334	12.6	371	12.6
UNKNOWN	0	-	1	-	1,259	-	1,260	-
TOTAL	3	100.0	280	100.0	3,917	100.0	4,200	100.0

TABLE 4

2002 DEER CRASHES

ROAD INCLINE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
LEVEL	2	66.7	171	61.7	1,658	62.7	1,831	62.6
HILL	1	33.3	96	34.7	900	34.0	997	34.1
CREST	0	0.0	10	3.6	88	3.3	98	3.3
UNKNOWN	0	-	3	-	1,271	-	1,274	-
TOTAL	3	100.0	280	100.0	3,917	100.0	4,200	100.0

TABLE 5

2002 DEER CRASHES

ROAD CONDITIONS BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRY	0	0.0	39	14.0	507	19.0	546	18.5
WET	2	66.7	231	82.8	2,117	79.4	2,350	79.7
SNOW	0	0.0	0	0.0	1	0.0	1	0.0
ICE	1	33.3	9	3.2	26	1.0	36	1.2
SLUSH	0	0.0	0	0.0	0	0.0	0	0.0
MUD	0	0.0	0	0.0	15	0.6	15	0.5
STANDING WATER	0	0.0	0	0.0	0	0.0	0	0.0
MOVING WATER	0	0.0	0	0.0	0	0.0	0	0.0
UNKNOWN	0	-	1	-	1,251	-	1,252	-
TOTAL	3	100.0	280	100.0	3,917	100.0	4,200	100.0

TABLE 6

2002 DEER CRASHES

HIGHWAY CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	22	7.9	386	9.9	408	9.7
U.S. HIGHWAY	0	0.0	76	27.1	917	23.4	993	23.6
STATE NUMBERED	2	66.7	82	29.3	1,080	27.6	1,164	27.7
SINGLE STATE LETTERED	0	0.0	44	15.7	590	15.1	634	15.1
DOUBLE STATE LETTERED	0	0.0	11	3.9	211	5.4	222	5.3
OUTER ROAD	0	0.0	2	0.7	26	0.7	28	0.7
COUNTY ROAD	1	33.3	20	7.1	323	8.3	344	8.2
CITY STREET	0	0.0	21	7.5	341	8.7	362	8.6
INTERSTATE LOOP	0	0.0	1	0.4	1	0.0	2	0.1
OTHER ¹	0	0.0	1	0.4	42	1.1	43	1.0
TOTAL	3	100.0	280	100.0	3,917	100.0	4,200	100.0

¹ "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 7

2002 DEER CRASHES

HIGHWAY CLASSIFICATION BY AREA CLASSIFICATION AND CRASH SEVERITY

	URBAN								RURAL							
	PERSONAL INJURY				PROPERTY DAMAGE				PERSONAL INJURY				PROPERTY DAMAGE			
	FATAL	%			FATAL	%			FATAL	%			FATAL	%		
INTERSTATE	0	0.0	5	7.6	98	10.6	103	10.4	0	0.0	17	7.9	288	9.6	305	9.5
U.S. HIGHWAY	0	0.0	20	30.3	199	21.5	219	22.1	0	0.0	56	26.2	718	24.0	774	24.1
STATE NUMBERED	0	0.0	13	19.7	201	21.7	214	21.6	2	66.7	69	32.2	879	29.4	950	29.6
SINGLE STATE LETTERED	0	0.0	2	3.0	32	3.5	34	3.4	0	0.0	42	19.6	558	18.7	600	18.7
DOUBLE STATE LETTERED	0	0.0	1	1.5	22	2.4	23	2.3	0	0.0	10	4.7	189	6.3	199	6.2
OUTER ROAD	0	0.0	1	1.5	3	0.3	4	0.4	0	0.0	1	0.5	23	0.8	24	0.8
COUNTY ROAD	0	0.0	3	4.6	44	4.8	47	4.7	1	33.3	17	7.9	279	9.3	297	9.3
CITY STREET	0	0.0	20	30.3	305	32.9	325	32.7	0	0.0	1	0.5	36	1.2	37	1.2
INTERSTATE LOOP	0	0.0	1	1.5	0	0.0	1	0.1	0	0.0	0	0.0	1	0.0	1	0.0
OTHER ¹	0	0.0	0	0.0	23	2.5	23	2.3	0	0.0	1	0.5	19	0.6	20	0.6
TOTAL	0	0.0	66	100.0	927	100.0	993	100.0	3	100.0	214	100.0	2,990	100.0	3,207	100.0

¹ "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 8

**2002 MISSOURI DEER CRASHES
MONTH OF YEAR**

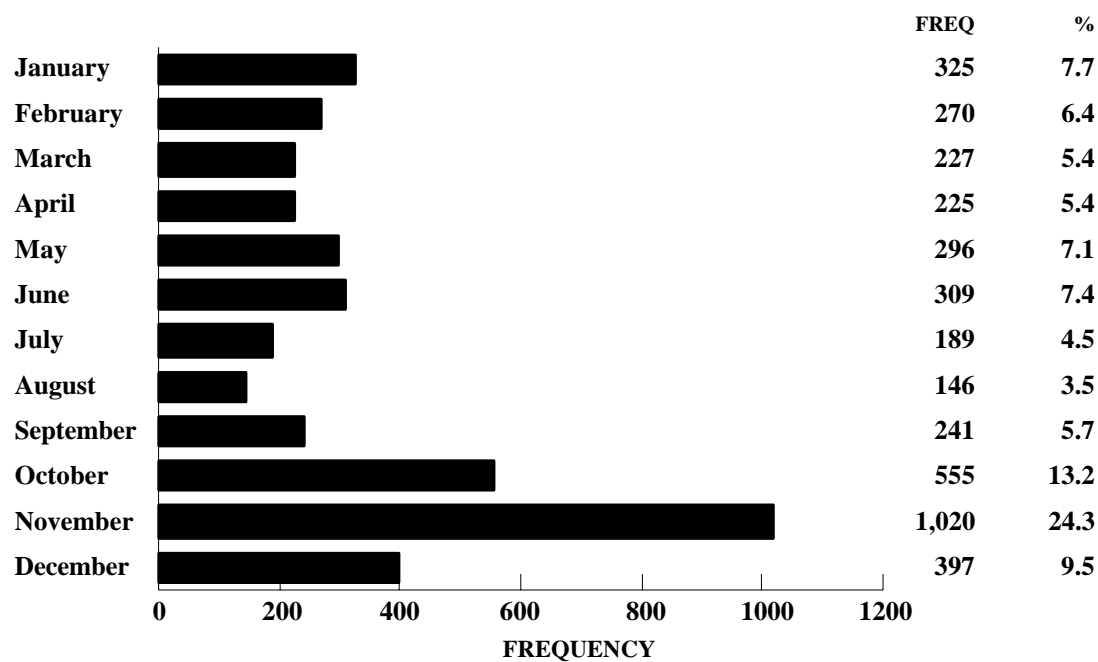


FIGURE 2

**2002 MISSOURI DEER CRASHES
DAY OF WEEK**

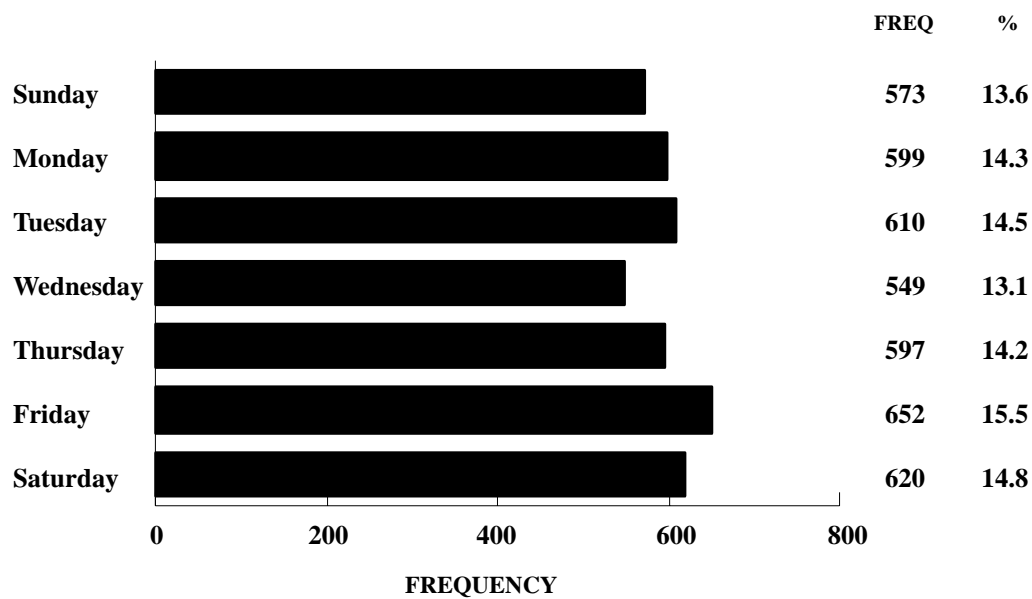


FIGURE 3

**2002 MISSOURI DEER CRASHES
HOUR OF DAY**

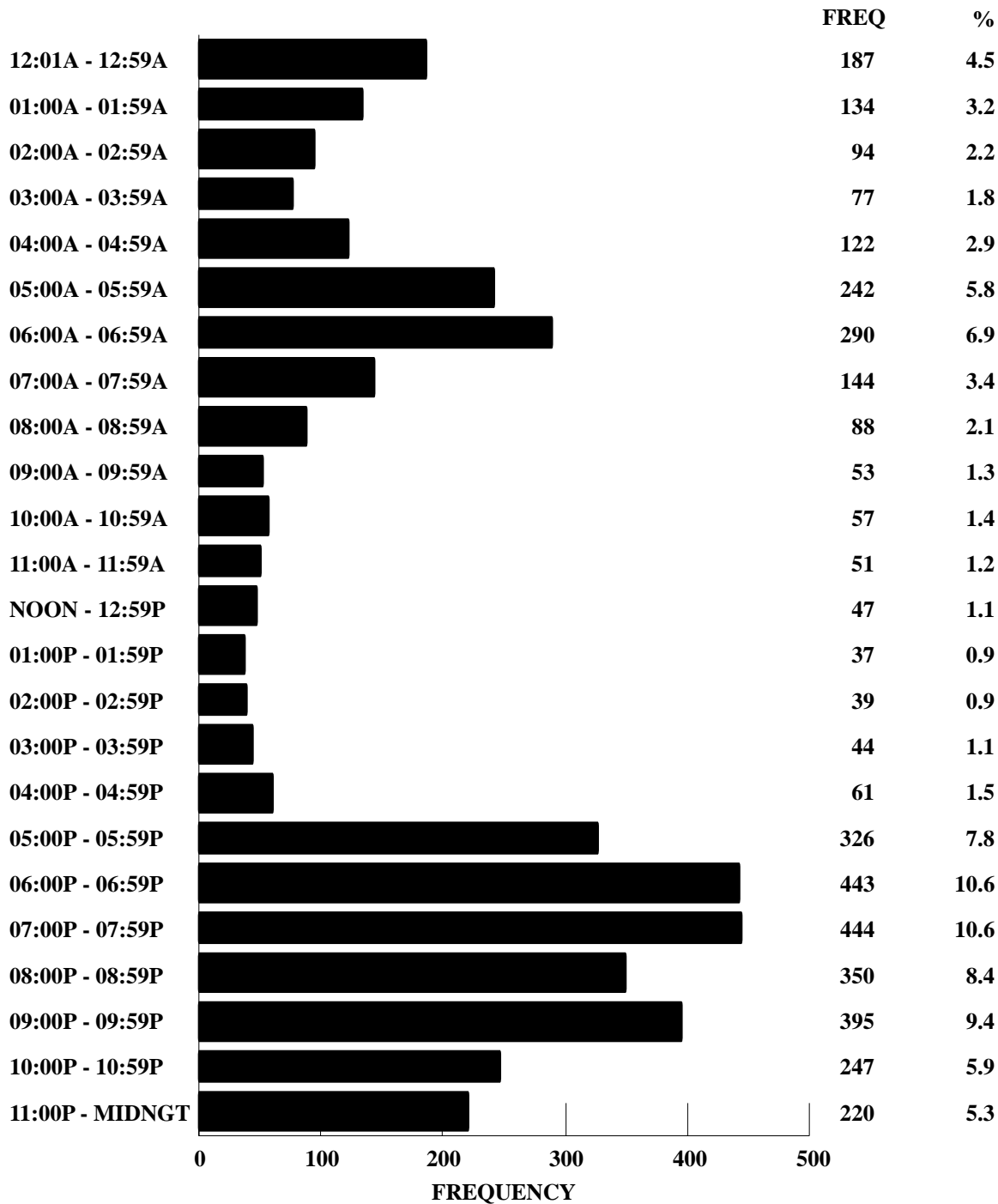


FIGURE 4

Unknown Data Not Included

2002 MISSOURI DEER CRASHES¹

TYPE OF VEHICLE STRIKING DEER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AUTOMOBILE	0	0.0	170	61.4	2,086	53.3	2,256	53.8
SPORT UTILITY VEHICLE	1	33.3	22	7.9	471	12.0	494	11.8
LIMOUSINE	0	0.0	0	0.0	0	0.0	0	0.0
VAN	1	33.3	23	8.3	400	10.2	424	10.1
BUS	0	0.0	0	0.0	8	0.2	8	0.2
SCHOOL BUS	0	0.0	0	0.0	6	0.2	6	0.1
MOTORCYCLE	1	33.3	30	10.8	4	0.1	35	0.8
MOPED	0	0.0	0	0.0	0	0.0	0	0.0
MOTORHOME / CAMPER	0	0.0	0	0.0	5	0.1	5	0.1
FARM EQUIPMENT	0	0.0	0	0.0	0	0.0	0	0.0
CONSTRUCTION EQUIPMENT	0	0.0	0	0.0	0	0.0	0	0.0
OTHER TRANSPORT DEVICE	0	0.0	0	0.0	2	0.0	2	0.1
PICK-UP TRUCK	0	0.0	26	9.4	814	20.8	840	20.0
OTHER TRUCKS	0	0.0	5	1.8	119	3.0	124	3.0
ALL TERRAIN VEHICLE	0	0.0	1	0.4	0	0.0	1	0.0
UNKNOWN	0	-	1	-	1	-	2	-
TOTAL	3	100.0	278	100.0	3,916	100.0	4,197	100.0

¹This table includes only those vehicles striking a deer during the first harmful event in a crash.

TABLE 9

VEHICLES STRIKING DEER IN 2002 MISSOURI CRASHES¹

DRIVER INVOLVEMENT BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRIVERLESS	0	0.0	0	0.0	0	0.0	0	0.0
KNOWN DRIVER INVOLVED	3	100.0	277	99.6	3,912	99.9	4,192	99.9
UNKNOWN DRIVER INVOLVED	0	0.0	1	0.4	4	0.1	5	0.1
TOTAL	3	100.0	278	100.0	3,916	100.0	4,197	100.0

¹This table includes only vehicles striking deer during the first harmful event in a crash.

TABLE 10

DRIVERS OF VEHICLES STRIKING DEER IN 2002 MISSOURI CRASHES¹

SEX OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
MALE	3	100.0	150	54.2	1,637	60.8	1,790	60.2
FEMALE	0	0.0	127	45.8	1,057	39.2	1,184	39.8
UNKNOWN	0	-	1	-	1,222	-	1,223	-
TOTAL	3	100.0	278	100.0	3,916	100.0	4,197	100.0

¹The table includes only drivers of vehicles striking deer during the first harmful event in a crash.

TABLE 11

DRIVERS OF VEHICLES STRIKING DEER IN 2002 MISSOURI CRASHES¹

AGE OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AVERAGE AGE OF DRIVER	31.7	-	37.1	-	39.0	-	38.9	-
14 YEARS AND UNDER	0	0.0	0	0.0	1	0.0	1	0.0
15 - 20 YEARS	0	0.0	50	18.1	413	10.6	463	11.1
21 - 25 YEARS	0	0.0	33	12.0	463	11.9	496	11.9
26 - 30 YEARS	1	33.3	23	8.3	405	10.4	429	10.3
31 - 35 YEARS	2	66.7	23	8.3	415	10.7	440	10.6
36 - 40 YEARS	0	0.0	29	10.5	462	11.9	491	11.8
41 - 45 YEARS	0	0.0	38	13.8	466	12.0	504	12.1
46 - 50 YEARS	0	0.0	21	7.6	379	9.8	400	9.6
51 - 55 YEARS	0	0.0	26	9.4	333	8.6	359	8.6
56 - 60 YEARS	0	0.0	15	5.4	218	5.6	233	5.6
61 - 65 YEARS	0	0.0	7	2.5	148	3.8	155	3.7
66 YEARS AND OVER	0	0.0	11	4.0	183	4.7	194	4.7
UNKNOWN	0	-	2	-	30	-	32	-
TOTAL	3	100.0	278	100.0	3,916	100.0	4,197	100.0

¹This table includes only drivers of vehicles striking deer during the first harmful event in a crash.

TABLE 12

DRIVERS OF VEHICLES STRIKING DEER IN 2002 MISSOURI CRASHES¹

DRIVER'S LICENSE STATE AND TYPE BY CRASH SEVERITY

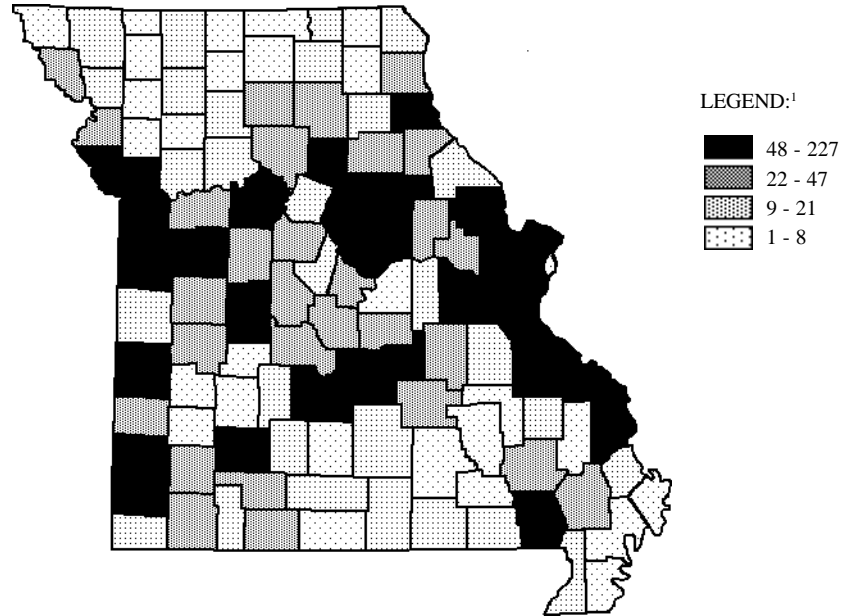
	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
MISSOURI								
LEARNER'S PERMIT	0	0.0	0	0.0	4	0.2	4	0.1
OPERATOR'S LICENSE	1	33.3	236	85.2	2,118	79.3	2,355	79.8
MOTORCYCLE ONLY	0	0.0	0	0.0	0	0.0	0	0.0
COMMERCIAL DRIVER'S LICENSE	1	33.3	10	3.6	198	7.4	209	7.1
SUB-TOTAL	2	66.7	246	88.8	2,320	86.9	2,568	87.0
OUT STATE								
LEARNER'S PERMIT	0	0.0	0	0.0	0	0.0	0	0.0
OPERATOR'S LICENSE	1	33.3	25	9.0	300	11.2	326	11.1
MOTORCYCLE ONLY	0	0.0	0	0.0	0	0.0	0	0.0
COMMERCIAL DRIVER'S LICENSE	0	0.0	3	1.1	45	1.7	48	1.6
SUB-TOTAL	1	33.3	28	10.1	345	12.9	374	12.7
UNLICENSED	0	0.0	3	1.1	6	0.2	9	0.3
UNKNOWN	0	-	1	-	1,245	-	1,246	-
TOTAL	3	100.0	278	100.0	3,916	100.0	4,197	100.0

¹This table includes only drivers of vehicles striking deer during the first harmful event in a crash.

TABLE 13

2002 DEER STRIKE CRASHES

COUNTY QUARTILE ANALYSIS



¹ LEGEND CATEGORIES ARE BASED ON QUARTILES OF COUNTIES.

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
1.0	JACKSON	277	6.6	22.0	BUTLER	58	1.4
2.0	ST. LOUIS	201	4.8	23.0	BENTON	57	1.4
3.0	JEFFERSON	194	4.6	24.0	PERRY	53	1.3
4.0	CLAY	184	4.4	25.0	SALINE	52	1.2
5.0	PLATTE	167	4.0	26.5	AUDRAIN	51	1.2
6.0	ST. CHARLES	130	3.1	26.5	STE. GENEVIEVE	51	1.2
7.0	BOONE	128	3.0	28.0	CAPE GIRARDEAU	49	1.2
8.0	FRANKLIN	108	2.6	29.0	MARION	48	1.1
9.0	CASS	102	2.4	First Quartile			
10.0	JASPER	89	2.1	Second Quartile			
11.0	PHELPS	84	2.0	30.0	WARREN	47	1.1
12.0	GREENE	80	1.9	31.5	CRAWFORD	45	1.1
13.0	JOHNSON	77	1.8	31.5	MONROE	45	1.1
14.0	PULASKI	72	1.7	33.5	BUCHANAN	42	1.0
15.0	RANDOLPH	69	1.6	33.5	MORGAN	42	1.0
16.0	LACLEDE	67	1.6	35.0	COOPER	41	1.0
17.5	LINCOLN	63	1.5	37.0	COLE	37	0.9
17.5	ST. FRANCOIS	63	1.5	37.0	ST. CLAIR	37	0.9
19.0	VERNON	62	1.5	37.0	STODDARD	37	0.9
20.0	CALLAWAY	60	1.4	39.0	CAMDEN	35	0.8
21.0	NEWTON	59	1.4				

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
40.0	LINN	34	0.8	79.0	CLARK	10	0.2
42.0	DENT	33	0.8	79.0	HOWARD	10	0.2
42.0	HENRY	33	0.8	79.0	RIPLEY	10	0.2
42.0	MACON	33	0.8	79.0	SCHUYLER	10	0.2
44.5	LAFAYETTE	32	0.8	84.5	CARROLL	9	0.2
44.5	RALLS	32	0.8	84.5	DAVISS	9	0.2
46.0	CHRISTIAN	30	0.7	84.5	DOUGLAS	9	0.2
47.0	MILLER	29	0.7	84.5	LIVINGSTON	9	0.2
48.5	CHARITON	26	0.6	84.5	NODAWAY	9	0.2
48.5	PETTIS	26	0.6	84.5	OREGON	9	0.2
52.0	HOLT	25	0.6	Third Quartile			
52.0	LAWRENCE	25	0.6	Fourth Quartile			
52.0	LEWIS	25	0.6	88.5	OSAGE	8	0.2
52.0	MONTGOMERY	25	0.6	88.5	WRIGHT	8	0.2
52.0	TANEY	25	0.6	91.5	CALDWELL	7	0.2
55.0	WAYNE	24	0.6	91.5	CEDAR	7	0.2
56.5	BARRY	23	0.5	91.5	GRUNDY	7	0.2
56.5	BARTON	23	0.5	91.5	POLK	7	0.2
58.0	MARIES	22	0.5	96.0	ATCHISON	6	0.1
Second Quartile				96.0	CLINTON	6	0.1
Third Quartile				96.0	KNOX	6	0.1
59.5	ADAIR	21	0.5	96.0	NEW MADRID	6	0.1
59.5	WEBSTER	21	0.5	96.0	SCOTLAND	6	0.1
61.0	MC DONALD	20	0.5	101.0	CARTER	5	0.1
62.0	STONE	19	0.5	101.0	DE KALB	5	0.1
63.0	WASHINGTON	18	0.4	101.0	GENTRY	5	0.1
64.0	RAY	17	0.4	101.0	MISSISSIPPI	5	0.1
65.0	BATES	16	0.4	101.0	PEMISCOT	5	0.1
66.5	DALLAS	15	0.4	105.5	DADE	4	0.1
66.5	TEXAS	15	0.4	105.5	IRON	4	0.1
68.5	HARRISON	14	0.3	105.5	PUTNAM	4	0.1
68.5	MADISON	14	0.3	105.5	SULLIVAN	4	0.1
71.0	HOWELL	13	0.3	110.0	BOLLINGER	3	0.1
71.0	MONITEAU	13	0.3	110.0	HICKORY	3	0.1
71.0	PIKE	13	0.3	110.0	REYNOLDS	3	0.1
73.0	SCOTT	12	0.3	110.0	SHANNON	3	0.1
75.0	DUNKLIN	11	0.3	110.0	ST. LOUIS CITY	3	0.1
75.0	GASCONADE	11	0.3	113.0	WORTH	2	0.0
75.0	SHELBY	11	0.3	114.5	MERCER	1	0.0
79.0	ANDREW	10	0.2	114.5	OZARK	1	0.0

TABLE 14

2002 DEER STRIKE CRASHES

CITY LISTING

RANK	CITY	FREQUENCY	PERCENT ¹
1.0	KANSAS CITY	229	19.4
2.5	INDEPENDENCE	46	3.9
2.5	LEE'S SUMMIT	46	3.9
4.0	COLUMBIA	34	2.9
5.0	SPRINGFIELD	32	2.7
6.0	WILDWOOD	29	2.5
7.0	JOPLIN	27	2.3
8.0	CAPE GIRARDEAU	25	2.1
9.0	CHESTERFIELD	24	2.0
10.0	ST. JOSEPH	22	1.9
11.5	JEFFERSON CITY	20	1.7
11.5	MARYLAND HEIGHTS	20	1.7
13.0	FULTON	17	1.4
14.0	SMITHVILLE	16	1.4
15.5	LIBERTY	15	1.3
15.5	OSAGE BEACH	15	1.3
18.0	HANNIBAL	13	1.1
18.0	JACKSON	13	1.1
18.0	ROLLA	13	1.1
23.0	BLUE SPRINGS	12	1.0
23.0	BOONVILLE	12	1.0
23.0	GRANDVIEW	12	1.0
23.0	MOBERLY	12	1.0
23.0	PARKVILLE	12	1.0
23.0	SUNSET HILLS	12	1.0
23.0	WENTZVILLE	12	1.0
27.5	BELTON	10	0.8
27.5	EXCELSIOR SPRINGS	10	0.8
30.5	HARRISONVILLE	9	0.8
30.5	NEOSHO	9	0.8
30.5	NEVADA	9	0.8
30.5	RIVERSIDE	9	0.8
35.5	ARNOLD	8	0.7
35.5	LAKE ST. LOUIS	8	0.7
35.5	O'FALLON	8	0.7
35.5	PEVELY	8	0.7
35.5	ST. PETERS	8	0.7
35.5	WARRENSBURG	8	0.7
40.0	ELLISVILLE	7	0.6
40.0	MARSHALL	7	0.6
40.0	WEBB CITY	7	0.6
46.0	BRANSON	6	0.5
46.0	FESTUS	6	0.5
46.0	GLADSTONE	6	0.5
46.0	HERCULANEUM	6	0.5
46.0	NIXA	6	0.5
46.0	OZARK	6	0.5
46.0	TROY	6	0.5
46.0	WARRENTON	6	0.5
46.0	WASHINGTON	6	0.5

¹Percentage is based on deer involved crashes which occurred in Missouri municipalities with populations of 1,000 or more. Only those municipalities comprising 0.5% or more of these crashes are listed.

TABLE 15